Welcome to STN International! Enter x:x

LOGINID:ssspta1202sxq

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

| | | |
|---|---|---|
| NEWS 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS 2 | Apr 08 | "Ask CAS" for self-help around the clock |
| NEWS 3 | Jun 03 | New e-mail delivery for search results now available |
| NEWS 4 | Aug 08 | PHARMAMarketLetter(PHARMAML) - new on STN |
| NEWS 5 | Aug 19 | Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN |
| NEWS 6 | Aug 26 | Sequence searching in REGISTRY enhanced |
| NEWS 7 | Sep 03 | JAPIO has been reloaded and enhanced |
| NEWS 8 | Sep 16 | Experimental properties added to the REGISTRY file |
| NEWS 9 | Sep 16 | CA Section Thesaurus available in CAPLUS and CA |
| NEWS 10 | Oct 01 | CASREACT Enriched with Reactions from 1907 to 1985 |
| NEWS 11 | Oct 24 | BEILSTEIN adds new search fields |
| NEWS 12 | Oct 24 | Nutraceuticals International (NUTRACEUT) now available on STN |
| NEWS 13 | Nov 18 | DKILIT has been renamed APOLLIT |
| NEWS 14 | Nov 25 | More calculated properties added to REGISTRY |
| NEWS 15 | Dec 04 | CSA files on STN |
| NEWS 16 | Dec 17 | PCTFULL now covers WP/PCT Applications from 1978 to date |
| NEWS 17 | Dec 17 | TOXCENTER enhanced with additional content |
| NEWS 18 | Dec 17 | Adis Clinical Trials Insight now available on STN |
| NEWS 19 | Jan 29 | Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC |
| NEWS 20 | Feb 13 | CANCERLIT is no longer being updated |
| NEWS 21 | Feb 24 | METADEX enhancements |
| NEWS 22 | Feb 24 | PCTGEN now available on STN |
| NEWS 23 | Feb 24 | TEMA now available on STN |
| NEWS 24 | Feb 26 | NTIS now allows simultaneous left and right truncation |
| NEWS 25 | Feb 26 | PCTFULL now contains images |
| NEWS 26 | Mar 04 | SDI PACKAGE for monthly delivery of multifile SDI results |
| NEWS 27 | Mar 19 | APOLLIT offering free connect time in April 2003 |
| NEWS 28 | Mar 20 | EVENTLINE will be removed from STN |
| NEWS 29 | Mar 24 | PATDPAFULL now available on STN |
| NEWS 30 | Mar 24 | Additional information for trade-named substances without structures available in REGISTRY |
| NEWS 31 | Mar 24 | Indexing from 1957 to 1966 added to records in CA/CAPLUS |
| NEWS 32 | Apr 11 | Display formats in DGENE enhanced |
| NEWS 33 | Apr 14 | MEDLINE Reload |
| NEWS 34 | Apr 17 | Polymer searching in REGISTRY enhanced |

| | |
|---|---|
| NEWS EXPRESS | April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003 |
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS INTER | General Internet Information |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS PHONE | Direct Dial and Telecommunication Network Access to STN |
| NEWS WWW | CAS World Wide Web Site (general information) |

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Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:29:41 ON 21 APR 2003

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 09:29:47 ON 21 APR 2003
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STRUCTURE FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0
DICTIONARY FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s 22554-56-9/rn
L1 1 22554-56-9/RN

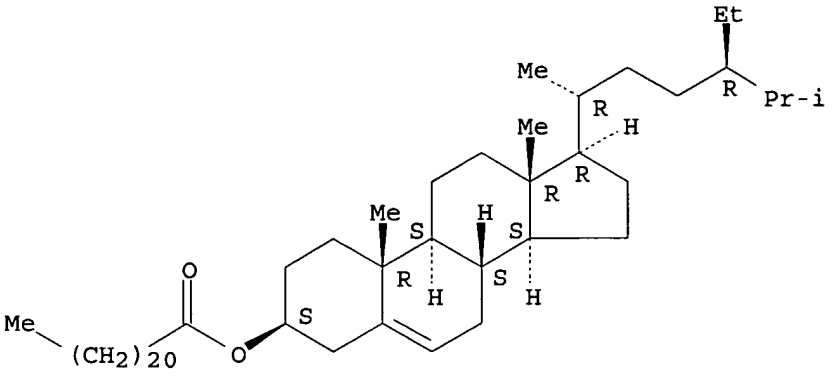
=> d l1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN **22554-56-9** REGISTRY
CN Stigmast-5-en-3-ol, docosanoate, (3.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN .beta.-Sitosterol, docosanoate (6CI)
CN Stigmast-5-en-3.beta.-ol, docosanoate (8CI)
OTHER NAMES:
CN .beta.-Sitosterol behenate
FS STEREOSEARCH

09448356

MF C51 H92 O2
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

7 REFERENCES IN FILE CA (1962 TO DATE)
7 REFERENCES IN FILE CAPLUS (1962 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> FIL REGISTRY

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 2.88 | 3.09 |

FILE 'REGISTRY' ENTERED AT 09:31:32 ON 21 APR 2003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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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=> S 22554-56-9/RN

L2 1 22554-56-9/RN

=> FIL CHEMLIST

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.40 | 3.49 |

FILE 'CHEMLIST' ENTERED AT 09:31:34 ON 21 APR 2003
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FILE COVERS 1979 TO 18 APR 2003 (20030418/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification.

TSCA Inventory Tape information is current through January 6, 2003 as provided by the January 2003 version from NTIS.

Updates to the Philippines Inventory of Chemicals and Chemical Substances are now available. The updates are current through December 2002.

Updates to the Taiwan Toxic Chemical Substances List are now available. The updates are curent through July 2002.

New additions to the file:
- High Production Volume (HPV) chemicals lists of Australia, ICCA, ECD and the United States (HELP HPV)
- Screening Information Data Set (SIDS) list (HELP SIDS)
- Substances that are classified as CERCLA Hazardous Substances in the Code of Federal Regulations (HELP CERHS)
- Known health hazards of specific chemicals (HELP HHAZ)
- Chemical and physical property data (HELP PRP)
- Information on storage, spill disposal, and environmental fate (HELP STOR)
- International information that may be required for the transportation, packaging, and labeling of chemicals (HELP TPL)
- German Water Hazard Class Substance List (HELP WGK).
- State of Louisiana Right-to-Know List of Extremely Hazardous Substances (HELP SLA)
- State of Minnesota Right-to-Know Hazardous Substances List (HELP SMN)
- Inventory Update Rule lists for 1986, 1990, 1994, and 1998 (HELP IUR)
- Violations to Miscellaneous Regulations or Advisory Lists (HELP VIO)

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> S L2

L3 0 L2

=> ENTER ? FOR HELP AT ANY PROMPT

09448356

=> DISPLAY L3

L3 HAS NO ANSWERS
DISPLAY QUERY? (Y)/N:N

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=>
=> s docosahexanoic acid
0 DOCOSAHEXANOIC
72189 ACID
L4 0 DOCOSAHEXANOIC ACID
(DOCOSAHEXANOIC(W)ACID)

=> s docosahexaenoic acid
5 DOCOSAHEXAENOIC
72189 ACID
L5 5 DOCOSAHEXAENOIC ACID
(DOCOSAHEXAENOIC(W)ACID)

=> d l5 1-2

L5 ANSWER 1 of 5 CHEMLIST COPYRIGHT (C) 2003 ACS
AN 252270 CHEMLIST
RN 25167-62-8
CN 4,7,10,13,16,19-**docosahexaenoic acid**
DHE
**Docosahexaenoic acid**
CBI Public
FA RN CAS Registry Number
EECL European Community Legislation
==== European Community Regulations ====
EECL European Community Legislation
Official Journal of the European Communities, No L 132 (1 Jun 1996). Publication of Commission Decision 96/335/EC of 8 May 1996 establishing an inventory and a common nomenclature of ingredients employed in cosmetic products in accordance with Article 6(1) of the cosmetic products Directive 76/768/EEC. This substance is listed in Section I.
INCI Name: **DOCOSAHEXAENOIC ACID**
Function: antistatic agents

L5 ANSWER 2 of 5 CHEMLIST COPYRIGHT (C) 2003 ACS
AN 218565 CHEMLIST
CN Eicosapentaenoic acid, mixture with **docosahexaenoic acid**, methyl ester (AICS)
FS AUSTRALIA: AICS
CBI Public
RLN AICS No.: 51-08-1A
INV On AICS
Australian Inventory of Chemical Substances, June 1996 Ed.
FA RLN Regulatory List Number
INV Inventory Status

09448356

=> d l5 3-5

L5 ANSWER 3 of 5 CHEMLIST COPYRIGHT (C) 2003 ACS
AN 218453 CHEMLIST
CN Eicosapentaenoic acid, mixture with **docosahexaenoic acid**, ethyl ester (AICS)
FS AUSTRALIA: AICS
CBI Public
RLN AICS No.: 51-07-0A
INV On AICS
Australian Inventory of Chemical Substances, June 1996 Ed.
FA RLN Regulatory List Number
INV Inventory Status

L5 ANSWER 4 of 5 CHEMLIST COPYRIGHT (C) 2003 ACS
AN 218448 CHEMLIST
CN Eicosapentaenoic acid, mixture with **docosahexaenoic acid**, triglyceride (AICS)
FS AUSTRALIA: AICS
CBI Public
RLN AICS No.: 50-84-0A
INV On AICS
Australian Inventory of Chemical Substances, June 1996 Ed.
FA RLN Regulatory List Number
INV Inventory Status

L5 ANSWER 5 of 5 CHEMLIST COPYRIGHT (C) 2003 ACS
AN 218308 CHEMLIST
RN 2566-90-7
CN 4,7,10,13,16,19-**Docosahexaenoic acid**, methyl ester, (all-Z)- (AICS)
4,7,10,13,16,19-**Docosahexaenoic acid**, methyl ester, (4Z,7Z,10Z,13Z,16Z,19Z)-
Methyl 4,7,10,13,16,19-cis-docosahexanenoate
Methyl all-cis-4,7,10,13,16,19-docosahexaenoate
Methyl cis,cis,cis,cis,cis,cis-docosa-4,7,10,13,16,19-hexaenoate
Methyl docosahexaenoate
FS AUSTRALIA: AICS
CBI Public
INV On AICS
Australian Inventory of Chemical Substances, June 1996 Ed.
FA RN CAS Registry Number
INV Inventory Status

=> FILE REG

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 33.72 | 37.21 |

FILE 'REGISTRY' ENTERED AT 09:36:33 ON 21 APR 2003
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STRUCTURE FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0
DICTIONARY FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> STR 25167-62-8

25167-62-8 MAY NOT BE USED AS A MODEL
COMPONENTS
112-85-6 C22 H44 O2

ENTER NAME OF STRUCTURE TO BE RECALLED (NONE):END

=>
THIS FEATURE IS NOT AVAILABLE FOR THE SELECTED CAS RN

=> FILE REG

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.40 | 37.61 |

FILE 'REGISTRY' ENTERED AT 09:36:50 ON 21 APR 2003


Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0
DICTIONARY FILE UPDATES: 20 APR 2003 HIGHEST RN 503529-60-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> STR 25167-62-8

25167-62-8 MAY NOT BE USED AS A MODEL
COMPONENTS
112-85-6     C22 H44 O2


ENTER NAME OF STRUCTURE TO BE RECALLED (NONE):END


=>
THIS FEATURE IS NOT AVAILABLE FOR THE SELECTED CAS RN


=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.40      38.01

FILE 'CAPLUS' ENTERED AT 09:37:31 ON 21 APR 2003
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FILE COVERS 1907 - 21 Apr 2003  VOL 138 ISS 17
FILE LAST UPDATED: 20 Apr 2003  (20030420/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l5
          6863 DOCOSAHEXAENOIC
       3611016 ACID
L6        6234 DOCOSAHEXAENOIC ACID
                 (DOCOSAHEXAENOIC(W)ACID)

=> s l5 and sterol
          6863 DOCOSAHEXAENOIC
       3611016 ACID
          6234 DOCOSAHEXAENOIC ACID
                 (DOCOSAHEXAENOIC(W)ACID)
         20790 STEROL
L7          57 L5 AND STEROL

=> d l7 1-4 ibib hitstr abs
```

09448356

L7 ANSWER 1 OF 57 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:100805 CAPLUS
TITLE: Modulation of adipocyte determination and differentiation-dependent factor 1 by selected polyunsaturated fatty acids
AUTHOR(S): Ding, Shih-Torng; McNeel, Ronald L.; Mersmann, Harry J.
CORPORATE SOURCE: USDA/ARS Children's Nutrition Research Center, Department of Pediatrics, Baylor College of Medicine, Houston, TX, 77030-2600, USA
SOURCE: In Vitro Cellular & Developmental Biology: Animal (2002), 38(6), 352-357
CODEN: IVCAED; ISSN: 1071-2690
PUBLISHER: Society for In Vitro Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The transcription factor, **sterol** regulatory binding protein 1c (also called adipocyte detn. and differentiation-dependent factor 1), stimulates transcription of the messenger ribonucleic acids (mRNAs) for lipid synthesis enzymes. Hepatic ADD1 transcripts are reduced by polyunsatd. fatty acids (PUFAs). The ADD1 transcripts are expressed to a considerable extent in porcine adipocytes. Consequently, it was of interest to examine the effects of several PUFAs on ADD1 in a tissue wherein several long-chain fatty acids (FAs) increase adipocyte differentiation. The effects of arachidonic acid (C20:4), **docosahexaenoic acid** (C22:6), and cis 9, trans 11-conjugated linoleic acid (9,11-CLA) on differentiating preadipocyte ADD1 mRNA and protein and on preadipocyte differentiation were detd. Porcine stromal-vascular cells were plated in serum-contg. medium and differentiated in serum-free medium contg. insulin, hydrocortisone, and transferrin .+-. an individual FA. After 24-h differentiation .+-. FA, plates were stained with Oil Red O as an indicator of differentiation or total RNA was extd. or a nuclear fraction was isolated for protein measurement. Addn. of C20:4 or 9,11-CLA increased the no. of Oil Red O-stained cells or the Oil Red O-stained material, whereas C22:6 did not. Addn. of C20:4, C22:6, or 9,11-CLA decreased the concn. of the mRNA and protein for ADD1. Thus, although all three FAs decreased the ADD1 mRNA and protein concns., C20:4 and 9,11-CLA increased differentiation, measured by Oil Red O staining, whereas C22:6 did not. The data suggest that the regulation of differentiation and mRNAs by individual FAs may involve distinct mechanisms.
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 57 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:83472 CAPLUS
TITLE: Variation in lipid classes and fatty acid composition of salmon shark (Lamna ditropis) liver with season and gender
AUTHOR(S): Jayasinghe, Chamila; Gotoh, Naohiro; Wada, Shun
CORPORATE SOURCE: Department of Food Science and Technology, Tokyo University of Fisheries, 4-5-7, Konan, Minato-ku, Tokyo, 108-8477, Japan
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (2003), 134B(2), 287-295
CODEN: CBPBB8; ISSN: 1096-4959
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The influence of season and gender on lipid content, lipid classes, and fatty acid compns. was assessed in livers of salmon shark (Lamna ditropis), caught in the Pacific Ocean. No significant difference in the hepatosomatic index was noted with season, though the lipid content was significantly higher (P<0.05) in winter. Triacylglycerol (TAG) was identified as the predominant lipid class (78.5-82.0%), followed by **sterol** esters (5.7-9.1%) and hydrocarbons (3.4-5.4%). No significant differences were obsd. in TAG compn. with respect to the season or gender. However, diacylglyceryl ether contents were significantly higher (P<0.05) in winter (3.8-5.3%) than those obtained in summer (1.3-1.1%). Polyunsatd. fatty acids constituted the major fatty acid class of salmon shark total liver lipid and **docosahexaenoic acid** (C22:6n-3) (22.7-28.4%) was the most abundant fatty acid which was significantly lower (P<0.05) in winter. These results suggested that lipid characteristics of salmon shark liver were influenced by season, but not by gender.

L7 ANSWER 3 OF 57 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:53022 CAPLUS
TITLE: Essential fatty acid synthesis and its regulation in mammals
AUTHOR(S): Nakamura, M. T.; Nara, T. Y.
CORPORATE SOURCE: Department of Food Science and Human Nutrition, University of Illinois at Urbana-Champaign, Urbana, IL, 61801, USA
SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids (2003), 68(2), 145-150
CODEN: PLEAEU; ISSN: 0952-3278
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The tissue content of highly unsatd. fatty acids (HUFA) such as arachidonic acid and **docosahexaenoic acid** is maintained in a narrow range by feedback regulation of synthesis. Delta-6 desaturase (D6D) catalyzes the first and rate-limiting step of the HUFA synthesis. Recent identification of a human case of D6D deficiency underscores the importance of this pathway. **Sterol** regulatory element binding protein-1c (SREBP-1c) is a key transcription factor that activates transcription of genes involved with fatty acid synthesis. We recently identified **sterol** regulatory element (SRE) that is required for activation of the human D6D gene by SREBP-1c. Moreover, the same SRE also mediates the suppression of the D6D gene by HUFA. The identification of SREBP-1c as a key regulator of D6D suggests that the major physiol. function of SREBP-1c in liver may be the regulation of phospholipid synthesis rather than triglyceride synthesis. Peroxisome proliferators (PP) induce fatty acid oxidn. enzymes and desaturases in rodent liver. However, the induction of desaturases by PP is slower than the induction of oxidn. enzymes. This delayed induction may be a compensatory reaction to the increased demand of HUFA caused by increased HUFA oxidn. and peroxisome proliferation in PP administration. Recent studies have demonstrated a crit. role of peroxisomal .beta.-oxidn. in DHA synthesis, and identified acyl CoA oxidase and D-bifunctional protein as the key enzymes.

REFERENCE COUNT: 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 57 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:973882 CAPLUS

09448356

DOCUMENT NUMBER: 138:152676
TITLE: Macronutrient innovations: the role of fats and sterols in human health
AUTHOR(S): Li, Duo; Sinclair, Andrew J.
CORPORATE SOURCE: Department of Food Science, Hangzhou University of Commerce, Hangzhou, 310035, Peop. Rep. China
SOURCE: Asia Pacific Journal of Clinical Nutrition (2002), 11(Suppl.), S155-S162
CODEN: APJNFQ; ISSN: 0964-7058
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. Dietary intakes of fats and sterols play crit. roles in human health. High proportions of satd. fats, which increase blood cholesterol levels, are mainly found in animal fats and some plant oil (cocoa butter, palm oil). The dominant polyunsatd. fatty acid (PUFA) in Western diets is linoleic acid (LA; C18:2n-6), an essential fatty acid commonly found in vegetable seed oils. This is the parent fatty acid of n-6 series of PUFA, which can be converted in vivo to C20 and C22 n-6 long-chain (LC) PUFA. The .alpha.-linolenic acid (ALA; C18:3n-3) is less abundant than LA and is another essential fatty acid. ALA is also present in some vegetable oils such as perilla, flaxseed, canola, soybean and walnut oils. ALA is the precursor of C20 and C22 n-3 LC PUFA. Sterols are widely distributed in animal and plant tissues, with cholesterol being the major **sterol** in animal tissue and .beta.-sitosterol, campesterol and stigmasterol in plants. Increased dietary intakes of satd. fat and (to a lesser extent) of cholesterol, raise blood plasma or serum total and low-d. lipoprotein (LDL)-cholesterol, while PUFA decrease these levels. Plasma or serum levels of lipids and lipoprotein lipids can also be decreased by plant sterols (phytosterols) and diacylglycerols (DAG). Conjugated linoleic acid (CLA, cis-9, trans-11-C18:2) has some anticancer and antidiabetic activities. Fat in the DAG form has also some antiobesity effects. The n-3 PUFA have beneficial effects on increased heart rate variability, decreased risk of stroke, decrease of both systolic and diastolic blood pressure, and may be effective in managing depression in adults. The .gamma.-linolenic acid (GLA) and phytosterols have anti-inflammatory activities. The GLA, when combined with **docosahexaenoic acid** (DHA, C22:6n-3), has beneficial effects in hyperactive children.

REFERENCE COUNT: 104 THERE ARE 104 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT